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RECENT TENDENCIES IN THE REFORM OF FOREST TAXATION

Upon the general principles of forest and timber-land taxation students of public finance in the United States have reached substantial agreement. The formulations, however, of concrete proposals for tax reform have varied greatly in both scope and method. The ends to be achieved avowed by the few states which have recently revised their forest taxation laws have been: first, distributive justice or equality of burden upon different types of wealth; secondly, encouragement of constructive forestry by private enterprise. The methods which have been employed to reach these ends have been: total exemption of timber from taxation for a fixed statutory period, e.g., New York; rebate of a percentage of the taxes assessed, e.g., New Hampshire; bounty on growing timber, e.g., Pennsylvania; assessment of an annual tax on the value of the land exclusive of the timber, associated with an income tax on the final yield, payable when the timber is cut, e.g., Connecticut and Vermont; annual assessment on the combined value of the land and the timber, at a valuation not subject to subsequent increase, combined with a final-yield tax, e.g., Iowa, Michigan, and Massachusetts. In none of these states, however, has standing timber constituted more than a small proportion of the taxable wealth. Nor have any of them seriously considered the revision of the taxation of virgin, as contrasted with growing, timber.

To the attainment of either of the purposes of reform the general property tax has proven unspeakably inadequate. In truth, the inequities incident to the ad valorem taxation of timber are yet more conspicuous perhaps than any of the many other anomalies of American public finance. That in 32 of the 48 states private property in timber, whether mature or immature, is still subject to the unmodified general property tax is evidence, not of the absence of an insistent national economic problem, but of the lethargic inertia of American legislatures and of American public indifference.

The writer, in order to determine the recent progress in advanced public sentiment as well as in actual legislation on forest taxation, has corresponded with the tax commission and the forestry department of each of the several states and has consulted numerous representative lumbermen and timber owners.¹ From the data thus available certain perhaps not uninteresting generalizations have been derived on a subject not often discussed in economic literature.

DISTRIBUTIVE JUSTICE

Timber lands are in theory heavily overtaxed, in comparison with other types of wealth or even with other real property, itself notoriously overburdened in practice under the general property tax. Where overtaxation does not exist, its absence has been due in practice to the excessive undervaluation of the forests. The annual ad valorem tax on timber is peculiarly inequitable because the period of financial rotation of a forest crop does not coincide with the periodicity of the tax. The money-income-producing period of forestry enterprise is not one year but often 50 years or more. In this essential respect standing timber is distinct from other kinds of wealth, for example farm lands, which yield an income convertible into money at periods of not more than one year. An annual tax is nevertheless levied under the general property tax in the case of timber lands, upon the capital value of the land itself plus the value of each successive annual increment of forest growth (or in the case of virgin timber the annual value increment due to the increasing relative scarcity of such timber) compounded to the time of maturity or of cutting. To cite a familiar example: One acre of farm land may be assessed at \$100. This amount represents the capitalized value of its estimated crop-producing capacity or the present value of the sum of expected future incomes. The annual crop of say \$5 gross value is each year separated from the soil. Unless this "income" be transmuted into a form of taxable property, e.g., sheds or more land, it regularly in practice escapes taxation in the United States

¹ This investigation was undertaken as a part of a more comprehensive study of "The Organization of the Lumber Industry" in the United States. A book by the writer under the above title is now on the press of the *American Lumberman*, Chicago

however taxable in theory it may be. Other things being equal, this acre of land at the end of 50 years is still taxed on a valuation of \$100. Meanwhile the owner has regularly utilized the successive annual crops without taxation.

Ten acres of forest land on the other hand may be assessed at \$100 (\$10 per acre). This amount also represents the capitalized value of its estimated crop-producing capacity, or the sum of expected future incomes discounted to the present. The value of the land plus the timber at the end of 50 years may be \$1,200, or the value of the timber alone \$1,100. This case then represents an income accumulating at compound interest for 50 years at the rate of about 5 per cent per annum. At the end of 14 years the value of the 10 acres of timber (land+timber) is \$200, or the present value of the \$1,200 total value of the income expected 36 years hence; at the end of 28 years \$400; of 42 years \$800; of 50 years \$1,200. Thus at the end of 42 years the 10 acres of timber land are assessed theoretically at \$800, the 1 acre of farm land at \$100. Yet the incomes from both are presumed to be of equal value; else the capitalization of the value of the two incomes would differ and the value of the 1 acre of farm land which is but the value of the income capitalized would not have been equal to the value of the 10 acres of forest land.

ENCOURAGEMENT OF CONSTRUCTIVE FORESTRY

Were valuations for taxation made at 100 per cent, timber land in most of the states would be, as compared to farm land, which is itself inequitably burdened, many fold overtaxed. The recent public clamor throughout the South and the Pacific Northwest for a truer assessment of the value of standing timber becomes therefore of much significance.¹ Because of relative overtaxation timber-holding in New England and the northeastern states has been markedly discouraged. For example, the effort to secure relief in New Hampshire in 1913 by an amendment of the state constitution providing for classification was defeated mainly

¹ This has been an echo of the outburst starting about 1906 against the so-called "lumber trust." It is undoubtedly true that timber owners have been to an exceptional degree in many states the beneficiaries of lax administration of the tax laws.

through the efforts of large wood-using corporations interested in the purchase of timber at low prices from heavily taxed owners. The pressure due to unscientific taxation has been a much stronger influence in determining the policy of timber-owners in the eastern states and in the Great Lakes region than it has been in the southern pine belt or in the Pacific Northwest. The definite recent tendency however toward a truer valuation of timber for purposes of taxation points to an increasingly serious situation in the South and West.

The taxing power, in the opinion of Professor Fred R. Fairchild,¹ can best be used to promote the interests of forestry by private enterprise through the medium of an income tax on the value of the gross yield at the time of cutting. To students of forest taxation the income principle has been in fact generally acceptable as both sound in theory and practicable as an instrument of actual reform in the taxation of growing forests. As applied to young growth, an annual tax on the value of the land alone, combined with an income tax on the value of the timber alone when cut, presents no apparently insurmountable administrative difficulties. It relieves the timber-owner of *increasing* taxes while he is as yet receiving no money income. This principle has been incorporated in recent legislation in New York, Connecticut, Vermont, and other states. It has lately been adopted in Massachusetts, where "wild or forest land" is now subject to classification for taxation. It has been warmly advocated in North Carolina, Wisconsin, and Ohio. In 16 states relief in varying degrees has been extended to owners of growing timber by exemption from taxation for a period, by deferring the tax until time of cutting, or by bounties.

In none of these 16 states, however, is the question of the possible fiscal embarrassment or the inadequacy of revenue arising as a consequence of these relief measures of much practical importance. These acts refer only to growing timber, which constitutes but a small proportion of the taxable property within the states. In all

¹ *Proceedings of National Tax Association*, 1908, pp. 73 ff.; 1912, pp. 371-93: "I do not wish to minimize the importance of also devising the best possible method of taxing mature merchantable timber. This I regard, however, as a somewhat distinct problem and a less serious one" (p. 373). The present writer is unable to subscribe to this estimate of the comparative practical importance of the taxation of virgin timber, in view of forest conditions prevailing in the United States.

the states *virgin* timber is still subject to the unmodified general property tax. It is in this connection that the use of the taxing power for social purposes other than purely fiscal deserves special consideration. The conservative utilization of the virgin timber is now of as great public interest as is the encouragement of reforestation. The solution of our forest problem depends as much upon the maintenance of a sound policy toward the use of the present supply of virgin timber as upon the creation of a new supply by constructive forestry methods. The present supply must tide over the demand until a new constructive scheme of forest production has been established in this country.

The taxing power is the only means available to government of influencing the policy of timber-owners short of direct government regulation or of public ownership of forests. Whatever be their merits, the extension of the field of the latter two alternatives is distasteful to the vast majority of the American people, still impregnated as they are with the spirit of the individualistic doctrine of governmental function. But it is not enough that forest-growing be encouraged. The public is now and will continue to be for many years dependent upon the virgin forests for its lumber supply. Conservative utilization of the existing supply is therefore but a logical corollary to the need of promoting constructive forestry. Scientifically, the social purpose of forest-tax reform is the encouragement of both the reforestation of non-agricultural land and the reasonable use of the present stock of virgin timber. To secure one without the other would be only a partial solution of the problem.¹ It is in the promotion of the latter purpose that embarrassing fiscal difficulties are to be encountered.

GROWING TIMBER AND MATURE FORESTS COMPARED

The growing forest receives normally both an annual volume and an annual value increment. The virgin forest receives only a value increment due to the increasing relative scarcity of the

¹ It is unfortunate that only the interests of reforestation have received due consideration in the discussion of tax revision. This essay on virgin-timber taxation is an effort to indicate the interrelation between constructive forestry and conservation.

natural resource of which it is a part. But economically the value increment is the all-powerful factor in determining the policy of the owner in reference to the cutting of his timber. The government through the taxing power can exert strong influence on this policy by appropriating by way of taxes a smaller or a larger proportion of this value increase.

It has often been argued that the owner of virgin timber is the recipient of an unearned increment and that he should not therefore be aided by the lax administration of the taxes in holding his timber for future increases in value; that taxes should be levied on his property in the same way as on all other property; that his enjoyment of the increasing unearned increment is unsocial; that it causes higher prices for forest products. Whatever be the theoretical merits of this argument, it is evident that the corrective measure proposed would tend to defeat the very social purpose it is intended to protect. Were taxation of forests under the general property tax administered in practice as it is in theory, i.e., on a true valuation of property, the result in most of the states would be to stimulate more rapid cutting. This would tend to cause (1) temporarily lower prices of forest products; (2) prices continually increasing as the supply of timber decreased; (3) consumption of the present supply before an adequate new supply was available.

The public interest lies both in reasonable present prices of forest products and in the conservative use of virgin timber until an adjustment of new growth to demand has been achieved. The annual ad valorem taxation of timber tends, by stimulating cutting, to promote temporarily the first but to defeat the second interest. It is submitted as the opinion generally held among enlightened timber-owners and administrative officials that the highest public policy requires (1) that degree, and no more than that degree, of conservative use of virgin timber which will make possible the transition, without *unreasonable* inconvenience to the users of forest products, to a permanent organization of timber-growing enterprise on principles of scientific management, such as now prevail in Germany; and (2) the encouragement, within the limits thus imposed, of the current conversion of timber in the interest

of *reasonable* present prices to present consumers of forest products. Thus the advocacy of conservation *for its own sake* appears without scientific warrant. The use of the most available weapon of public control, the power of taxation, should be adjusted to and exercised in the interest of social welfare.

RECENT TENDENCIES

The desiderata in the reform of virgin-forest taxation are: (1) reasonable utilization of timber; (2) fiscal adequacy; (3) uniform legislation. Opinions and suggestions, based often on recent experience in the promotion of tax reform, received from administrative officials and timber-owners in all parts of the United States,¹ indicate that the most practicable present device for tax reform involves a compromise between the income and the property principles of taxation. Of the three interests above enumerated, the first is best subserved by an income tax; the second, by a property tax. Uniformity can be had or hoped for only through a compromise between the two. Enlightened judgment indicates the following as the most feasible approach in the United States to the regeneration of the system of taxing timber lands:

Annual land tax.—First. Uniform periodic valuation, subject to state review, of the land alone, such valuation to remain a maximum during the period fixed by law. A period for this purpose of not less than 10 years has most general approval. It may, however, be adjusted to varying conditions. The annual revenue derived from the levy of the prevailing general property tax rate on this maximum valuation would be relatively constant, varying only with variations in the rate itself as distinguished from variations in the value of the property.

Annual specific tax.—Second. Uniform valuation, subject to state review, of the timber alone at the time that the new system of taxation becomes operative, such valuation to remain a maximum until the time of final cutting. On this valuation an annual tax

¹ Special importance has been attached to the forest conditions prevailing in the Pacific Northwest. Due weight has been given to the opinions of lumbermen and administrative officials of that region. More than one-half of the remaining virgin-timber supply stands in the five states, Washington, Oregon, California, Idaho, and Montana. In no plan of tax reform may the insistent interests of the Pacific Northwest be overlooked.

may be levied at not more than a legal "normal" rate. The normal rate is so fixed as to produce a revenue equal to the average revenue for the preceding 10 years derived from this class of property. Any increase of the normal rate entitles the timber-owner to the remission from the final income tax (see *infra*) of an amount the present value of which, discounted at the legal rate of interest, not exceeding 6 per cent, is equal to *twice* the present value of the extra specific tax so imposed. This provision is intended as a reasonable check upon the increase of the legal normal rate. With the limitation so imposed the annual specific tax is nevertheless elastic and capable of emergency use.

Income or yield tax.—Third. Uniform valuation, subject to state review, of the standing timber at the time of cutting. On this valuation a tax is levied on a uniform statutory scale of rates, varying according to the length of the time interval between the original valuation of the timber under this system of taxation and the final cutting.

The annual land tax and the annual specific timber tax insure a relatively uniform revenue competent to meet the normal fiscal demands upon this class of property. The maximum valuations protect the timber-owner against the uncertainty of capricious future increases. The "normal" rate of the specific tax, capable of increase only upon condition of the remission from the income tax of an amount of twice the present value of such additional tax, is a further protection to the timber-owner against uncertainty. The income tax as outlined would thus tend to encourage the reasonable holding of timber, i.e., conservation. The annual taxes would tend to encourage cutting when prevailing prices afford reasonable warrant. While the timber-owner is not relieved of the burden of annual taxation he is, to a great extent, relieved of uncertainty as to future carrying-charges, in so far as these consist of tax payments. He is subject to an increase in the annual tax on his timber only on condition of the exemption from the final income tax of double the value of such increase. Such increases would naturally be infrequent.

When, under scientific management, the revenue from the income tax becomes sufficient in amount and of convenient periodicity,

the specific annual timber tax may be reduced and finally remitted. The tax on mature timber here outlined may thus be merged into the tax on growing timber. This tax, then, like the tax now applied in New York, Connecticut, and other northeastern states, consists of an annual tax on the land alone and an income tax on the final yield. Consistently and logically developed, the income principle of forest taxation would require the ultimate remission also of the annual land tax, since the value of the land used in forest culture is simply the capitalization of the value of its estimated income-producing capacity. The value of the land by itself cannot be dissociated from the aggregate present value of the anticipated future incomes to be derived from the land.

It has been the purpose of this note to indicate, not the problems of procedure and administration, but rather the scientific basis of practicable revision of the present anomalous system of virgin-forest taxation. Constitutional limitations have embarrassed many attempts to secure classification. Legislative apathy, as well as public indifference, has contributed to the defeat of several recent efforts to throw off such constitutional disability. The problem presented is thus of as great practical as it is of scientific interest.

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